

Claims

- [c1] 1. A method of providing a spray formed composite article, said method comprising:
- (a) providing a ¹²first article, the first article being a spray formed article;
 - (b) locating a ¹⁴second article adjacent the first article;
 - (c) spraying metallic particles onto the articles; and
 - (d) allowing the sprayed metallic particles to form a metal ²⁰deposit extended between and connecting the first and second articles.
- [c2] 2. The method of claim 1 wherein in step (b) a ¹⁶gap is formed between the first and second articles when the second article is located adjacent the first article.
- [c3] 3. The method of claim 2 wherein in step (c) the metallic particles are sprayed into the gap and in step (d) at least a portion of the metal deposit is formed in the gap.
- [c4] 4. The method of claim 3 wherein each of the first and second articles each have (i) ²⁴upper surfaces spaced apart a first distance from each other and (ii) ^{52, 54}end surfaces that face each other and are spaced apart from each other a second distance, less than the first distance.
- [c5] 5. The method of claim 4 wherein each of the end surfaces have portions that contact each other and each of the first and second articles have ^{56, 58}intermediate surfaces extending between and connecting each respective end surface with each respective upper surface.
- [c6] 6. The method of claim 5 wherein each of the intermediate surfaces extend at an angle of 5° to 60° relative to each respective upper surface.
- [c7] 7. The method of claim 1 wherein a ⁶⁰reinforcing member is provided proximate the first and second articles and a metal spraying device is provided for spraying the metal particles of step (c), the first and the second articles being located between the metal spraying device and the ^{reinforcing member}plate.
- [c8] 8. The method of claim 7 wherein the metal deposit extends between and connects the reinforcing member with at least one of the first and second

articles.

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A3
[c9]

9. The method of claim 4 wherein a ³⁰masking device is provided adjacent an end portion of each of the upper surfaces of the first and second articles.

11-
[c10]

10. The method of claim 9 wherein at least ⁴²one of the masking devices has a cutout portion extending away from the end portion of the upper surface.

7's, 6
[c11]

11. The method of claim 4 wherein the first article has a first thickness and wherein the first distance is about two times the first thickness.

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[c12]

12. The method of claim 4 wherein the metal deposit has at least a portion that extends above the at least one of the upper surfaces.

[c13]

13. The method of claim 12 further comprises the step (e) of grinding the metal deposit to form a portion of the deposit that is essentially coplanar with at least the upper surface of one of the articles.

[c14]

14. The method of claim 1 wherein the second article is not a spray formed article.

7's, 11
[c15]

15. The method of claim 14 wherein the second article comprises a ⁸⁰securing member.

[c16]

16. The method of claim 15 wherein the second article is located on the first article in step (b).

[c17]

17. The method of claim 1 wherein each of the articles have an interface surface that substantially cooperates with each other.

[c18]

18. A composite article formed by the process of claim 1.

[c19]

19. A lay-up tool molding member formed by the process of claim 15.

[c20]

20. A composite article comprising:
a first spray-formed article;
a second article adjacent the first article; and
a metal deposit extending between and connecting the first and second articles.

- [c21] 21. The composite article of claim 20 wherein the second article comprises a spray formed article.
- [c22] 22. The composite article of claim 20 wherein each of the articles have surfaces that contact each other.
- [c23] 23. The composite article of claim 22 wherein each of the articles have angled surfaces that cooperate to form a cavity, with at least a portion of the deposit being disposed within the cavity.
- [c24] 24. The composite article of claim 23 further comprising, a reinforcing member, with the deposit extending between and connecting the first and second members and the reinforcing member.
- [c25] 25. The composite article of claim 20 wherein the second article comprises a securing member.
- [c26] 26. The composite article of claim 20 wherein each of the articles have an interface surface that substantially cooperates with each other.

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